

# ITE

## Indirect calorifier-solar

**ITE - 300/400/500/600/750/1000**



Indirect water heater (calorifier) for solar applications

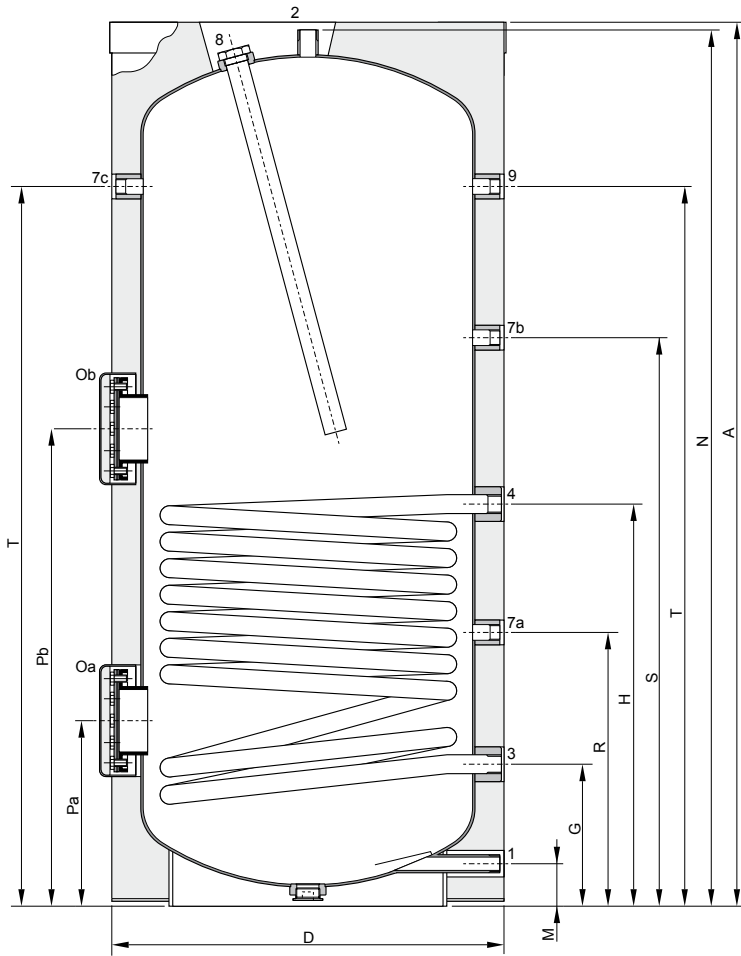
- Single-wall spiral heat exchanger • PermaGlas Ultra Coat second-generation glass coating technology prevents corrosion
- ITE 400-1000: Insulated ring base • Insulated access cover for comprehensive waterside maintenance • Replaceable magnesium anode • Options: Flexible magnesium anode for installation in confined areas • Powered anode for reduced maintenance requirements • Temperature and pressure valve with stainless steel spring set to 95°C and a maximum water pressure of 7 bar
- Analogue temperature gauge (0-120°C) • Electric element heat packs (3 - 36 kW) • Optional ancillaries: unvented kits
- Destratification pump kit

# Technical specifications

|                                    |                | ITE 400 | ITE 500 | ITE 600 | ITE 750 | ITE 1000 |
|------------------------------------|----------------|---------|---------|---------|---------|----------|
| <b>Technical data</b>              |                |         |         |         |         |          |
| Output coil                        | kW             | 52      | 68      | 72      | 80      | 87       |
| Surface area coil                  | m <sup>2</sup> | 2.45    | 3.11    | 3.45    | 3.72    | 4.82     |
| Water capacity coil                | l              | 14.8    | 18.8    | 29.3    | 31.6    | 40.9     |
| Flow rate coil (80-60°C)           | l/h            | 2236    | 2924    | 3096    | 3440    | 3741     |
| Pressure drop coil                 | mbar           | 244     | 489     | 104     | 128     | 259      |
| Maximum working pressure tank      | bar            | 10      | 10      | 10      | 10      | 10       |
| Maximum working pressure coil      | bar            | 16      | 16      | 16      | 16      | 16       |
| Maximum operating temperature tank | °C             | 95      | 95      | 95      | 95      | 95       |
| Maximum operating temperature coil | °C             | 110     | 110     | 110     | 110     | 110      |
| Standby loss                       | kWh/24h        | 1.60    | 1.88    | 1.85    | 2.03    | 2.19     |
| Anodes                             | -              | 1       | 1       | 1       | 1       | 1        |
| Maximum weight                     | kg             | 520     | 657     | 881     | 971     | 1338     |
| <b>Draw-off capacity</b>           |                |         |         |         |         |          |
| Storage capacity                   | l              | 389     | 478     | 652     | 734     | 1024     |
| 30 min. ΔT=44°C                    | l              | 882     | 1120    | 1345    | 1504    | 1882     |
| 60 min. ΔT=44°C                    | l              | 1390    | 1784    | 2048    | 2286    | 2733     |
| 90 min. ΔT=44°C                    | l              | 1898    | 2449    | 2752    | 3068    | 3583     |
| 120 min. ΔT=44°C                   | l              | 2406    | 3113    | 3455    | 3856    | 4433     |
| Continuous ΔT=44°C                 | l/h            | 899     | 1525    | 1955    | 2033    | 2189     |
| Heating-up time ΔT=44°C            | min.           | 20      | 15      | 15      | 19      | 20       |
| 30 min. ΔT=50°C                    | l              | 776     | 985     | 1183    | 1324    | 1656     |
| 60 min. ΔT=50°C                    | l              | 1223    | 1570    | 1802    | 2012    | 2405     |
| 90 min. ΔT=50°C                    | l              | 1670    | 2155    | 2422    | 2700    | 3153     |
| 120 min. ΔT=50°C                   | l              | 2118    | 2740    | 3041    | 3388    | 3901     |
| Continuous ΔT=50°C                 | l/h            | 791     | 1342    | 1720    | 1789    | 1926     |
| Heating-up time ΔT=50°C            | min.           | 22      | 17      | 16      | 22      | 23       |
| 30 min. ΔT=55°C                    | l              | 705     | 896     | 1076    | 1203    | 1506     |
| 60 min. ΔT=55°C                    | l              | 1112    | 1427    | 1639    | 1829    | 2186     |
| 90 min. ΔT=55°C                    | l              | 1518    | 1959    | 2201    | 2454    | 2866     |
| 120 min. ΔT=55°C                   | l              | 1925    | 2491    | 2764    | 3080    | 3546     |
| Continuous ΔT=55°C                 | l/h            | 719     | 1220    | 1564    | 1626    | 1751     |
| Heating-up time ΔT=55°C            | min.           | 25      | 19      | 18      | 24      | 25       |
| <b>Shipping data</b>               |                |         |         |         |         |          |
| Weight empty                       | kg             | 131     | 179     | 229     | 237     | 314      |
| Weight incl. packaging             | kg             | 153     | 201     | 251     | 260     | 348      |
| Width packaging                    | mm             | 780     | 780     | 870     | 870     | 1010     |
| Height packaging                   | mm             | 1850    | 2150    | 1930    | 2150    | 2100     |
| Depth packaging                    | mm             | 780     | 780     | 870     | 870     | 1010     |

# Dimensions

ITE 400-1000



|                       | ITE 400                               | ITE 500                               | ITE 600                               | ITE 750                               | ITE 1000                              |
|-----------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| A                     | 1705                                  | 2040                                  | 1835                                  | 2030                                  | 2000                                  |
| D                     | 720                                   | 720                                   | 910                                   | 910                                   | 1060                                  |
| G                     | 255                                   | 255                                   | 304                                   | 305                                   | 345                                   |
| H                     | 771                                   | 915                                   | 906                                   | 967                                   | 947                                   |
| M                     | 70                                    | 70                                    | 85                                    | 85                                    | 95                                    |
| N                     | 1652                                  | 1990                                  | 1797                                  | 1992                                  | 1962                                  |
| O                     | 115                                   | 115                                   | 180                                   | 180                                   | 180                                   |
| P*                    | 330                                   | 330                                   | 412                                   | 413                                   | 447                                   |
| P**                   | 897                                   | 1029                                  | 1062                                  | 1113                                  | 1087                                  |
| R                     | 500                                   | 500                                   | 649                                   | 650                                   | 700                                   |
| S                     | 1096                                  | 1288                                  | 1236                                  | 1297                                  | 1397                                  |
| T                     | 1362                                  | 1700                                  | 1476                                  | 1627                                  | 1602                                  |
| U                     | -                                     | -                                     | -                                     | -                                     | -                                     |
| 1 Cold water          | R2                                    | R2                                    | R2 <sup>1</sup> / <sub>2</sub>        | R2 <sup>1</sup> / <sub>2</sub>        | R2 <sup>1</sup> / <sub>2</sub>        |
| 2 Hot water           | R2                                    | R2                                    | R2 <sup>1</sup> / <sub>2</sub>        | R2 <sup>1</sup> / <sub>2</sub>        | R2 <sup>1</sup> / <sub>2</sub>        |
| 3 Inlet coil          | Rp1                                   | Rp1                                   | Rp1                                   | Rp1 <sup>1</sup> / <sub>4</sub>       | Rp1 <sup>1</sup> / <sub>4</sub>       |
| 4 Outlet coil         | Rp1                                   | Rp1                                   | Rp1                                   | Rp1 <sup>1</sup> / <sub>4</sub>       | Rp1 <sup>1</sup> / <sub>4</sub>       |
| 7 Connection          | Rp <sup>3</sup> / <sub>4</sub>        | Rp <sup>3</sup> / <sub>4</sub>        | Rp <sup>3</sup> / <sub>4</sub>        | Rp <sup>3</sup> / <sub>4</sub>        | Rp <sup>3</sup> / <sub>4</sub>        |
| 8 Anode connection    | Rp1 <sup>1</sup> / <sub>4</sub>       | Rp1 <sup>1</sup> / <sub>4</sub>       | Rp1 <sup>1</sup> / <sub>4</sub>       | Rp1 <sup>1</sup> / <sub>4</sub>       | Rp1 <sup>1</sup> / <sub>4</sub>       |
| 8 Connection (female) | 1"-11 <sup>1</sup> / <sub>2</sub> npt | 1"-11 <sup>1</sup> / <sub>2</sub> npt | 1"-11 <sup>1</sup> / <sub>2</sub> npt | 1"-11 <sup>1</sup> / <sub>2</sub> npt | 1"-11 <sup>1</sup> / <sub>2</sub> npt |
| 10 Anode connection   | -                                     | -                                     | -                                     | -                                     | -                                     |

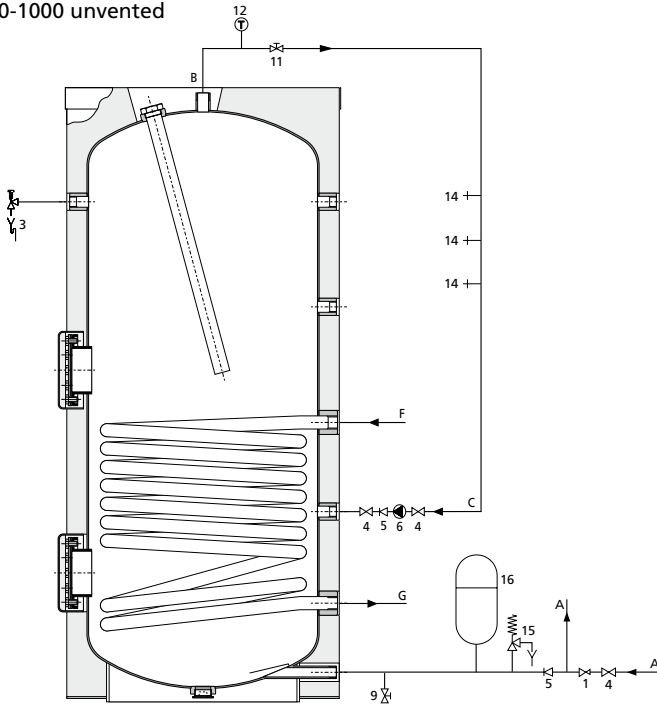
Dimensions in mm. All ITE calorifiers receive a three years warranty on the tank and one year on parts.  
Dimensions for ITE 1500-3000 available upon request.

\* Upper cleaning and inspection opening  
\*\* Lower cleaning and inspection opening



# Installation diagrams

ITE 400-1000 unvented



- 1 Pressure reducing valve
- 3 T&P valve
- 4 Stop valve
- 5 Non-return valve
- 6 Circulation pump
- 9 Drain valve
- 11 Isolating valve
- 12 Temperature gauge
- 14 Hot water outlets
- 15 Expansion relief valve
- 16 Expansion vessel
- 17 Three way valve
- 18 Water tank
- 19 Float valve

- A Cold water
- B Hot water
- C Return circulation
- F Primary flow
- G Primary return
- E Over flow pipe
- H Expansion vent pipe

A.O. Smith unvented system kits utilise combination valves.

Further installation and connection details can be found in the Installation & Commissioning Manual.

For the parts numbers of components please refer to the "Maintenance and accessories" chapter.

ITE 400-1000 vented

